

SDMS US EPA REGION V -1

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Incinerator *A. E. Leung*
DEPARTMENT 790 - 19/6 OPERATION

JANUARY

January was an excellent month with the incinerator operating at a near record pace. The venturi was cleaned out twice during the month. PCB losses to the sewer were high at over 5 lbs. per day for the last three days of the month. This loss was traced to the west aroclor sump which had received a trailer of wash water from 246. Plans are to empty the sump and clean out any residue which may be causing an emulsion.

John Peduzzi replaced Gary Johnson as Supervisor of the incinerator as of January 1, 1976.

FEBRUARY

In February, the Ray O Tube failed and the incinerator was shut down for repair and the plenum was cleaned of built up solids.

High solids content material from little Mo storage tank caused considerable difficulty during the month. The solids clogged the pumps and strainers in the system preventing waste from flowing to the incinerator.

Currently feed tanks are being supplied from drums and other freshly received waste sources. Additional larger strainers will be installed to clean up the solids.

The west Aroclor sump was cleaned out to reduce the PCB losses from this sump to the sewer.

MARCH

The incinerator needed cleaning of solids build in the plenum early in March. The degree of build up required entering the oxidizer and the unit was shut down for inspection and repairs.

The contactor tube weir ring was corroded and was repaired. The scrubber column packing was replaced and the scrubber was relined with cell cote 164. The old packing had suffered mechanical damage and considerable residue buildup.

Two rings of brick work in the oxidizer were repaired with Rom 90 and the plenum was also patched with Ram 90. The total turnaround took 17 days.

CER 010843

APRIL

A new monthly waste burned record was set in April. A combination of new scrubber packing and low BTU value fuel helped break the old record of 692,137 Lbs.

The new larger strainers are successfully removing the solids from Little Mo storage tank.

The Venturi was cleaned out once during the month. April was an all round excellent month.

MAY

In May, 624,000 Lbs. of wastes were burned. The plenum was cleaned of solids build up early in the month.

The incinerator has less than a two month inventory of wastes at this time.

A test was conducted on burning meta-fractions waste from Dept. 221. A visible nitrogen oxide plume was observed during the test. Further experimentation will be required to determine if meta fractions can be successfully burned in the plant incinerator.

On the last day in May, the department was shut down to repair a section of refractory that had fallen from the plenum roof. The repairs should take about 10 days.

The Venturi was cleaned once during the month.

JUNE

The department started up on June 7 after repairs were made to the plenum.

With the excellent operations this year, Little Mo has been emptied of residue. The remaining water layer will be settled in the incinerator sump and sewered. Little Mo will be cleaned and inspected and should be back in service during August.

Current plans are to rebrick the incinerator starting in September. The job is expected to take 7 weeks and sufficient storage will be available at the incinerator to hold all anticipated residue during this period.

The new ductwork from the quench pot to the Venturi has been installed with a teflon expansion joint to replace the teflon boot used in the past.

CER 010844

JULY

In July 623,000 lbs. of the new 1016 residue were received from the Aroclor department. With the new residue and the shutdown for rebricking, the incinerator will rapidly accumulate a several month inventory of wastes to be burned.

Little Mo was cleaned, inspected and returned to service in late July.

The plenum was cleaned of solids build up once during the month.

The teflon expansion joint installed last month in the quench pot ductwork has failed and must be modified to give reliable service.

Testing was completed on the burning of meta-fractions. They can be burned with out a visible nitrogen oxide plume if mixed at 10%-15% with other wastes. However even at this level the nitrogen oxide emissions are 2000 m.g./c.m. Nitrogen oxide emissions are not limited by current environmental legislation. A full test report will be published at a later date.

There are no plans for further tests at this time.

AUGUST

August was another good month with 614,519 Lbs. of waste burned.

The single gun burner was installed and tested and found to give satisfactory service. This burner should reduce solids accumulation in the plenum.

Wash water from Aroclor tank car cleanings began to be received in August. The Aroclor was allowed to settle and the clean water was decanted to the sewer.

The incinerator is scheduled for a 7 week shutdown for oxidizer rebricking. The shutdown is to begin September 2.

SEPTEMBER

The rebricking of the oxidizer is proceeding as scheduled.

A spray nozzle designed to reduce Venturi build-up has been installed.

CER 010845

OCTOBER

The incinerator started up on 10/15/76 after completion of the oxidizer rebricking. One hot spot on the plenum is being continuously monitored with a thermocouple. The hot spot has since cooled to normal levels and has not returned.

The old yearly burn record of 4,938,096 lbs. was broken in October. A total of 5,008,920 lbs. have been burned since the start of the year.

The new spray nozzle has slowed build-up in the Venturi. The throat has not been cleaned since start-up.

NOVEMBER

The incinerator was down for three days to modify the refractory in the plenum burner tile area. The gas nozzles were touching the edge of the refractory and the result was excessive vibration throughout the unit.

The Venturi was inspected and some moderate build-up was removed. The new spray nozzle has been helpful as, in the past, the Venturi would plug up in about 2 weeks time.

DECEMBER

A new yearly burn record of 5,946,131 lbs. was set in 1976.

The weir ring was repaired the first week of December and failed again in the last week. The ring will be removed for thorough inspection and repairs.

CER 010846

004030

DEPARTMENT 790, AROCLOR INCINERATION, 1976 OPERATIONS REPORT

INCINERATION (1976 4,546 M lbs., 58.67 UST, 70.97 OSR)

MONTH	JAN.	FEB.	MARCH	APRIL	MAY	JUNE	JULY	AUGUST	SEPT.	OCT.	NOV.	DE.
POUNDS BURNED	620,479	512,351	288,560	706,887	624,529	588,821	627,111	614,519	80,594	345,069	574,499	362,
BURNED YTD	620,479	1,132,830	1,421,390	2,128,277	2,752,806	3,341,627	3,968,738	4,583,257	4,663,851	5,008,920	5,583,419	5,946,
PERCENT OST	94.1%	76.4%	37.0%	95.4%	82.3%	69.4%	85.2	92.2%	00.3%	41.0%	82.6%	43
OST, YTD	94.1%	85.8%	69.1%	75.7%	77.0%	75.8%	77.1	79.0%	70.4%	67.4%	68.8%	66
OR % OF DE.	70.9%	76.6%	83.9%	82.3%	81.6%	94.2%	79.1	71.7%	103.9%	90.5%	77.2%	90
R % YTD	70.9%	73.4%	75.3%	77.5%	78.4%	80.8%	80.6	79.2%	80.6%	81.2%	80.7%	81

INVENTORY, POUNDS

WEEK REC.	324,713	186,340	172,954	249,760	238,302	284,382	623,874	717,774	640,375	495,362	359,492	543,8
WEEK MO. END	1,433,569	1,323,450	1,364,109	1,063,895	738,947	509,355	542,500	672,873	1,443,225	1,860,039	1,716,252	1,835,
WEEK REC.	136,245	215,892	156,265	161,913	72,979	144,587	69,291	72,329	77,551	69,721	86,990	967
WEEK MO. END	--	--	13,500	0	0	55,000	60,791	133,020	0	42,500	15,770	460
WEEK EMPTIED	136,245	215,892	142,765	175,413	72,979	89,587	63,500	--	210,571	27,221	113,720	665,

CER 010847

PERSONNEL - PERCENT REGULAR HOURS (Includes Phenol Handling)

TRA HOURS	28	8.5	20.2	0.0	0.0	0.0	0.0	0.0	0.0	14.2	23.4	0.0
H. YTD	28	15.8	17.3	13.3	11.6	10.0	8.8	7.6	7.3	7.6	9.3	8.0
RTIME	7	22.3	6.1	17.8	26.0	21.5	26.6	14.7	5.4	13.5	7.2	17.0
HRS. YTD	7	12.7	10.4	11.9	14.2	15.2	16.6	16.3	16.3	15.0	14.2	14.0
. HRS.	18.5	23.7	21.1	20.2	19.7	0.1	1.3	0.1	0.0	0.3	0.9	2.0
. HRS. YTD	18.5	20.7	20.8	22.7	22.3	19.2	17.0	14.7	14.1	11.8	10.6	10.0

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OR INC.	1	0	0	0	0	0	0	0	0	1	0	0
IOUS INC.	0	0	0	0	0	0	0	0	0	0	0	0